

Customer No.: 31561
Docket No.: 09612-US-PA
Application No.: 10/707,355

REMARKS

Present Status of the Application

The Office Action has rejected Claims 1-5 and 10-13 under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (US-6,424,326, hereinafter "Yamazaki").

Furthermore, Claims 6-9 and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (US-6,424,326, hereinafter "Yamazaki") in view of Heeger et al. (US-5,504,323, hereinafter "Heeger").

Applicants respectfully traverse the rejections and amend the claims addressed to Claims 1-24 for at least the reasons set forth below.

Discussion of the claim rejections under 35 USC 102(b)

The Office Action has rejected Claims 1-5 and 10-13 under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (US-6,424,326, hereinafter "Yamazaki").

In regards to claim 1, the following claim limitations **when considered together** in the amended claim 1 recite the following: "wherein the pixels **for display** comprise a plurality of red-light pixels, a plurality of green-light pixels and a plurality of blue-light pixels", "a red-light detector **disposed adjacent to** a red-light pixel on the transparent substrate", "a green-light detector **disposed adjacent to** a green-light pixel on the transparent substrate", and "a blue-light detector **disposed adjacent to** a blue-light pixel on the transparent substrate" are patentable over Yamazaki.

The Examiner has asserted in the Office Action on page 2 that Yamazaki teaches of sensor pixels being adjacent to the detector 500. On the other hand, the "pixels for display" element in Claim 1, as supported by the description in Paragraphs

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[0006]-[0009], [0012], are indeed explicitly referring to “pixels for display”, and therefore not considered to be sensor pixels. In fact, the sensor pixels of the present invention are meant to be defined as part of the detectors of red, blue, and green light.

The support for the claim amendment in Claim 1 for “pixels for display” is found in Paragraphs [0006]-[0009], [0012] in the present invention, which clearly shows that the pixels of the present invention in amended Claim 1 is referring to “display pixels only” and therefore not to sensor pixels; Paragraphs [0006]-[0009], [0012] in the present invention recite the following:

“generate photons.... light having different colors accordingly is generated... full-color organic electroluminescent display has different brightness degradation for red, green and blue light pixels.....brightness stability of different colors of the full-color organic electroluminescent display.... Therefore, when an organic electroluminescent layer of a pixel degrades, causing the reduction of brightness, the detector adjacent thereto detects the degradation..... maintaining the predetermined brightness of the pixel.”

As a result, by amending claim 1 by adding the functional limitation of “pixels for display”, the pixels are then **EXPLICITLY DEFINED** as display pixels only and not as sensor pixel as well. Thus, the sensor pixels of Yamazaki shall no longer anticipate claim 1.

MPEP in 2173.05(g) describes “Functional Limitations” as follows:

“A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional

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terms. Functional language does not, in and of itself, render a claim improper. In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

“A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.”

Therefore, the red-light detector 104a in Yamazaki is not disposed “adjacent” to the red-light pixels 105 (which is a display pixel), as further described in col. 14, lines 6-9, and shown in FIGs. 1 and 2 in Yamazaki.

In addition, the teachings as described by the Examiner in Figs 12C, 13A-13B in Yamazaki in page 8 of the office action regarding sensor pixels are thus no longer relevant as a result of the claim amendments.

Based upon the aforementioned traversing, pending the allowance of independent claim 1, dependent claims 2-5 and 10-12 should also be patentable over Yamazaki, and should be allowed as a result.

In regards to Claim 11, the following additional patentable claim limitation is recited in Claim 11: “each of the red-light detector, the green-light detector and the blue-light detector coupled to transfer units.” The amended element “pixel for display” in claim 11 is indeed patentable over the “sensor pixel” in Yamazaki as previously traversed in Claim 1. Thus the arguments used by the Examiner on page 9 of the office action

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regarding elements 555, 557, and 558 (which belong to the sensor pixels) are no longer relevant.

In Col. 5, lines 33-35 and Col. 6, line 24 of Yamazaki, Yamazaki clearly defines 104a to 104c to be the *sensor pixels* 104. Furthermore, 130, 131, 134, and 135 are clearly defined as elements within the *sensor pixel* 104 as shown in FIG. 3 in Yamazaki. In addition, 104a is equivalent to a red-light detector, 104b is equivalent to a green-light detector, and 104c is equivalent to a blue-light detector. And since each of the 104a, 104b, and 104c is coupled to the transfer units, 134 and 135 then cannot be the transfer units as alleged by the Examiner because 134 and 135 are instead part of 104a, 104b, and 104c as shown in FIG. 3 in Yamazaki.

In regards to claim 13, the following claim limitations recited in amended claim 13 when taken as a whole:

“forming a plurality of pixels for display on the transparent substrate, wherein the pixels for display comprise a plurality of red-light pixels, a plurality of green-light pixels and a plurality of blue-light pixels” and

“forming a red-light detector adjacent to a red-light pixel on the transparent substrate;

forming a green-light detector adjacent to a green-light pixel on the transparent substrate; and

forming a blue-light detector adjacent to a blue-light pixel on the transparent substrate” are clearly patentable over Yamazaki based upon the same argument for traversal as presented for claim 1 above.

Discussion of the claim rejections under 35 USC 103(a)

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The Office Action has rejected Claims 6-9 and 14-20 under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (US-6,424,326, hereinafter "Yamazaki") in view of Heeger et al. (US-5,504,323, hereinafter "Heeger").

In regards to Claim 6, pending the allowance of independent claim 1 and that neither Yamazaki nor Heeger teaches of a red-light detector, a green-light detector, and a blue-light detector to be disposed adjacent to a red-light pixel, a green-light pixel, and a blue-light pixel, respectively, on a transparent substrate, wherein the red-light pixel, the green-light pixel, and the blue-light pixel are defined as "pixels for display" instead of "sensor pixels", Claim 6 is then also patentable over Yamazaki in view of Heeger, and should be allowed. Indeed, Heeger is primarily used for providing the teachings of a photoelectric layer as an electroluminescent layer; therefore, Heeger certainly does not provide all of teachings for the missing gaps as discussed under 35 USC 102(b) rejections to Claims 1 and 13.

Pending the allowance of Claim 6, dependent Claims 7-9, and 21-22 are also allowable over Yamazaki in view of Heeger.

Pending the allowance of Claim 13 over Yamazaki in view of Heeger based upon the previous traversals above, dependent Claims 14-20, and 23-24 are also allowable over Yamazaki in view of Heeger. Indeed, Heeger certainly does not provide the teachings for all of the missing gaps as discussed under 35 USC 102(b) rejection to Claim 13.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-24 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,



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